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ABSTRACT

This paper reports on a World Health Organization (WHO) workshop whose participants, in accordance with WHO's Health for All (HFA) Target is, "Knowledge and Motivation for Healthy Behaviour," examined the importance of nutritional education in medical schools. Areas discussed include the discrepancy between the need for skills in nutrition among medical health workers and the lack of such education in medical schools, how to set educational objectives in the early planning stage of a nutrition course, and process evaluation. Workshop recommendations are discussed and include the following items: (1) establish a coordinated network of persons interested in nutrition education in medical schools; (2) establish a steering committee with seven member states which, together with two WHO Collaborating Centers, would support the work of the network on a national and international level; (3) report on nutrition training in medical schools; (4) develop a multicenter research project to establish the need for nutrition education of medical personnel; and (5) hold an "International Conference on Learning Nutrition in Medical Schools" in Warsaw, Poland in 1992. Contains 14 references. (GLR)

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LEARNING NUTRITION IN MEDICAL SCHOOLS

Report on a WHO Workshop

Warsaw
12-14 April 1989

organized by the
National Food and Nutrition Institute
WHO Collaborating Centre for Nutrition, Warsaw

in collaboration with the
Institute for Nutrition Research
WHO Collaborating Centre for Higher Training in Nutrition, University of Oslo

and the
Nutrition Unit
WHO Regional Office for Europe, Copenhagen

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HE 024 932

TARGET 15

Knowledge and motivation for healthy behaviour

By 1990, educational programmes in all Member States should enhance the knowledge, motivation and skills of people to acquire and maintain health.

Index:

NUTRITION EDUCATION
SCHOOLS, MEDICAL

CONTENTS

	<u>Page</u>
Summary.....	1
Introduction	3
Recommendations	10
References	13
Annex 1. Strategy for the strengthening of nutrition in medical education	14
Annex 2. List of participants	16

SUMMARY

Introduction

The workshop which was organized by the WHO Collaborating Centre, the National Food and Nutrition Institute in Warsaw, was attended by 23 representatives from fifteen Member States, all of them actively engaged in nutrition training in medical schools in their countries.

Medical schools have on many occasions been criticized for not providing their students with proper skills in nutrition work. Specific nutrition training, in the few medical schools that are offering it, so far takes up only 0.25-0.50% of total education time. It is assumed that with the growing attention to the use of food rather than drug therapy in diseases such as mildly elevated blood pressure or hypercholesterolaemia, medically trained people will need to know more about nutrition in order to advise their patients properly.

Educational objectives in nutrition

The workshop participants discussed the importance of making an analysis of the situation which the medical graduates would face after completing their education. Such a problem description should be formulated as a basis for training in nutrition. This would result in unequivocal educational objectives for nutrition. Such an analysis should ideally be undertaken also for other parts of the medical curriculum.

Evaluation of the training process

An in-built, continuous evaluation was seen as an important instrument for improving nutrition education in medical schools. It would be undertaken throughout the educational process, from its planning to the time when students were finally tested. It would test the effect of courses and teachers as well as students. The evaluation would show if the educational objectives were being met and would encourage evolution and adaptation in the courses.

Recommendations

1. A Network of persons interested in Nutrition Education in Medical Schools (NEMS) was established with immediate effect, comprising initially the participants of the workshop. Focal point for the Network was Dr Steve Wootton at the Department of Nutrition at the Medical School, University of Southampton.
2. A steering group was established, with representatives from seven Member States. The steering group would, together with the two WHO Collaborating Centres, support the work of the Focal Point on a national and international level.
3. A report on the situation of nutrition training in medical schools would be drafted, for circulation and amendment at those medical schools where nutrition training is already included.

4. A multicentre research project would be undertaken to establish the need for nutrition education of medical personnel.

5. An International Conference on "Learning Nutrition in Medical Schools" would be held in Warsaw in 1992.

A statement on a strategy for the strengthening of nutrition in medical education is found in Annex 1.

Workshop on learning nutrition in medical schools
Warsaw, 12-14 April 1989

Introduction

Although fascination with food and its effects on health may be as old as mankind, nutrition is in some ways a young science. The word "vitamin" was used first in 1912, and the preoccupation with nutrient deficiencies which characterized the research into functions of vitamins and amino acids persisted into the 1940's and 1950's. Only in the 1960's was nutrition seriously linked to overconsumption of nutrients, although far-sighted nutrition researchers had seen this connection as early as in the 1920's.

Today, nutritional science is also characterized by rapid expansion and dynamism. For example, the understanding of the role of different fatty acids in the etiology of disease and promotion of health is rapidly expanding, the requirements for different trace minerals is being explored and the role of non-nutrients such as the polyphenols which may have an important effect as antioxidants is emerging as potentially important.

The epidemic of chronic diseases, primarily ischaemic heart disease, cerebrovascular diseases and cancer that also struck Europe from the 1930's onwards was "officially" linked with nutrition for the first time in an American Heart Association report issued in 1961. The medical establishment in many countries has been slow to accept the link between diet and disease, but today there is near unanimity that mortality from ischaemic heart disease and cerebrovascular disease might be substantially reduced over time if people modified their diet (WHO 1982, 1986, 1988, Surgeon General, 1988), and that a considerable proportion of cancer deaths are preventable by means of diet (Doll and Peto, 1981, in Diet, Nutrition and Cancer, Committee on Diet, Nutrition and Cancer, National Academy of Sciences, Washington D.C.: National Academy Press, 1982).

A sudden preoccupation with "population awareness of serum cholesterol levels" emerged in the late 1980's. Many European countries are at present adopting strategies similar to that of the US National Academy of Sciences on this issue. This strategy implies that persons with a moderately elevated serum total cholesterol, which often means between 20-40% of the population, shall be advised to reduce their serum cholesterol level by dietary means. As physicians are commonly involved in some aspects of screening for serum cholesterol, the burden of advice will therefore fall upon them.

In view of the above, it is surprising that medical students in most countries receive very little information about nutrition and very little training enabling them to advise their patients on nutrition and diet. There may be many explanations for this. Medical education is in many countries still trapped in the concept that a physician's work is mainly concerned with the diagnosis and treatment of disease. The concept of health work as advocated by the WHO has, however, expanded to comprise not only curative work and prevention of disease, but also to the responsibility for the promotion of good health. In this context, proper, scientifically based knowledge about nutrition is of great importance to all practising physicians.

The most progressive country in nutrition education at the present time is the United States of America. Even there, although nutrition is being taught in one form or another in most medical schools, in only 20% of the schools does this involve a separate, specific course. (National Research Council, 1985)

In most medical schools in Europe, the situation is even less encouraging. In the few schools that teach nutrition as a separate subject, 20-50 hours may be all that is set aside for the subject through the entire medical course. This being equivalent to less than 0,4% of the total hours of teaching.

In contrast, the graduate physician may be requested to give nutritional advice many times during the course of a working day. A recent small study in the Netherlands (van Dusseldorp et al 1988) found that 15% of the cases handled by general practitioners involved discussions about diet.

Several studies have attempted to assess the actual knowledge of physicians about nutrition. Surveys in the USA in 1983 and 1986 found that of the physicians interviewed (cardiologists, internists and general and family practitioners) in 1983 only 39% believed that benefits were to be derived from reducing high serumcholesterol levels, in contrast to 64% of the public. On the question of whether there was value in modifying a high-fat diet, only 28% of the physicians in 1983 agreed to this, compared with 66% of the public. In 1986 this had increased to 40% and 72% respectively. This may reflect either a critical attitude on the part of physicians, or a lack of interest in the subject, deriving from the training they have received in medical school.

A Greek study was published in 1987 demonstrating that in response to a series of simple questions on food and nutrition, the physicians' perception of their own knowledge (in that they marked "yes" or "no" and not "do not know") was on an average 91%, whereas the percentage of correct answers was only 61% (Trichopoulou et al., 1987).

Calls to improve the attention given to nutrition in medical schools were repeatedly published in the United States of America, first in 1962 and on repeated occasions thereafter (Nestle, 1988). The International Union of Nutritional Sciences, which has a standing committee on "Nutrition Training in Schools of Medicine, Dentistry and Public Health", has also taken up the subject on many occasions since 1971 in reports and publications (IUNS 1971, 1978, 1979).

Obviously, there is a need to know more about where and how nutrition is being taught in Europe, and what the actual requirement for such education is among the medical profession. The workshop was convened to help start the process of addressing these problems.

The purpose of the workshop

In view of the discrepancy between the need for skills in nutrition among medical health workers and the lack of such education in medical schools, the workshop aimed at bringing together people with interest in changing this situation, to examine how, ideally, nutrition learning should be planned and communicated.

The workshop discussed why and how to set educational objectives at an early stage of planning of the course, and the importance of an in-built evaluation of the process from beginning to end.

It was further intended to discuss a strategy for action to strengthen and improve nutrition education in medical schools.

Participants

In order to identify persons with an interest in nutrition education in medical schools, a questionnaire was sent by the Warsaw Collaborating Centre to 76 institutions or associations working in nutrition in 21 countries, asking them to help identify which of medical colleges in their country actually performed such education. Replies were received from 26 of the institutions, providing 71 addresses. A letter of invitation and description of scope and purpose of the meeting was sent to the addresses of the schools identified. This resulted in a relatively low initial response (less than ten answers from 38 schools). As the meeting had to be postponed for six months, however, altogether 23 participants from 15 countries eventually were registered and took enthusiastically part in the workshop.

The difficulty in identifying participants illustrates the lack of attention given to the subject by medical schools, many of which were apparently unable to identify the person in charge of the nutrition education that was said to be provided by the school.

Organization

The workshop was organized by the WHO Collaborating Centre for Nutrition at the National Food and Nutrition Institute in Warsaw. Professor Barbara Cybulska was responsible. The workshop was conducted by Dr Arne Oshaug, from the WHO Collaborating Centre for Nutrition at the Institute for Nutrition Research, University of Oslo. Elisabet Helsing, Regional Officer for Nutrition in the WHO Regional Office for Europe was responsible for writing the report.

The workshop which was of three days' duration relied extensively on the experience of the participants, who made their contributions in small working groups which regularly reported back into plenary sessions. The basis for discussions about educational objectives was the WHO "Educational handbook for nutritionists" (Oshaug et al., 1988). In the following it is referred to as the Handbook.

The importance of setting objectives

"If you are not certain of where you are going you may very well end up somewhere else (and not even know it)", Dr Oshaug stated in his introduction to the workshop, citing Mager (1967). Providing medical students with knowledge about nutrition without considering what their eventual needs for this knowledge are likely to be, might easily lead to irrelevant training.

According to the philosophy expressed by WHO both in the above mentioned Handbook and other publications on medical training, professional training should be

- based on the health needs of the society
- based on the problems encountered in the community
- student centered
- continuously evaluated in relation to its objectives.

It was stated that medical education is often based on scientific and technological development, the needs of the medical profession, the needs of society, "the wishes of the strongest advocate" and modelled over a fixed time period (Rossinski, 1988). Medical education/training has done very well in rapidly incorporating scientific and technological development in medical training and practice. The two other areas are less well incorporated into medical curricula.

Alternatively, education could be based on a defined list of functions emanating from the needs of society, the services required and a problem description which takes this into consideration (Handbook, 1.26).

Professor Cybulska in her opening statement pointed to the earlier medical interest in "dietotherapy" which, as vitamin deficiencies became less frequent, waned as physicians in Poland felt drugtherapy to be more dynamic and interesting than nutrition.

Career prospects, both academic and practical, in the field of nutrition are deemed by physicians to be lacking, and they are not yet excited by the widening concepts of disease prevention and health promotion.

The lack of nutritional expertise in the past has had a negative feed-back on students' interest in the subject.

An increase in non-communicable diseases and understanding of their complex etiology, has led to a reawakening of this interest. The best prospect for a change of the situation in the future lies with the public interest in the subject, stimulated by the considerable media attention. The growing consumer demand for advice on matters of diet and disease is a challenge to the medical profession. But without proper training, future physicians will be ill prepared to meet this challenge.

What are the educational objectives for a medical graduate?

Based on group discussions, the following characteristics emerged:

A medical graduate ought to:

1. Identify nutrition-related problems at the community and individual level, in broad terms, not necessarily as an expert.

Such problem identification should be based on a critical study of existing information and resources in the community. This implies that students obtain a broad knowledge of how to conduct and interpret dietary assessments, and an understanding of how anthropometric and body composition measurements are made and what they express. Biochemical/pathological tests and their interpretation (including their limitations) should be understood. (Some of these will be included as part of the medical training in fields other than nutrition.)

2. Be able to describe the basic principles of nutrition.

This includes a basic understanding of food composition, how foods relate to total diet, how nutritional requirements are determined and recommendations worked out. On the basis of this, the graduate should appreciate the limitations and potentials in the use of such recommendations, especially in relation to appropriate use of nutrient supplements. Requirements for special groups such as the very old and the very young should be understood on physiological grounds.

On the basis of this, the graduate should be able to analyse the plurality of nutritional needs and the dynamics of nutritional development within a society.

3. Be able to give consistent and well-founded advice on nutrition in general, and prescribe the most important therapeutic diets appropriately.

The graduate should be able to explain the rationale for dietary advice given to the patient or the community. This implies an ability to keep up with the scientific literature in the field of nutrition, and to refer patients to experts when this is called for.

The graduate should be able to evaluate and interpret academic and promotional literature in the field of nutrition, and to distinguish between real and assumed nutritional problems.

An understanding of health promotion and the ability to communicate nutritional messages to community and individual would be necessary.

Nutrition-related aspects of microbiology and toxicology as well as changes over time in the microbiology of food should be understood and communicated, since these aspects often worry the consumer/patient.

4. Know current regulations (legislation) in the field of nutrition and dietetics.

5. Have an understanding of cost/benefit implication of his practice.

The role of evaluation in a nutrition education

Evaluation was viewed widely: evaluation of students, education programme, curriculum, learning materials, teachers and resource persons and so on.

A definition of evaluation was provided in the Handbook (2.29): "Evaluation in education is a systematic process which assesses the extent to which the student has attained the educational objectives to be 'measured'. Evaluation always includes measurements (quantitative or qualitative) plus a value judgement."

It was emphasized that three different components, or types of skills would need to be evaluated: intellectual skills, communication skills and practical skills, each of which were equally important. For further discussion of evaluation, see chapters 2 and 4 in the Handbook.

Why evaluate?

The purpose of evaluation was described as providing a basis for value judgments that would permit better educational decision-making.

The discussion about evaluation of education referred once again to the need to set educational objectives, against which performance could be measured. A side-effect of evaluation would be to demonstrate to all who take part that a given course actually fulfills its goal, showing that the graduate is capable of fulfilling the functions which had been defined at the outset.

Evaluation also provides feed-back that can generate changes, and continual revision and improvement of the learning process, ensuring that it is enjoyable and fruitful to those involved.

When to evaluate?

Evaluation was seen by participants to the workshop as a continuous and dynamic undertaking which should be performed throughout the educational process. It would start with an evaluation of the societal context into which the education was planned to be undertaken (i.e. a situation analysis in broad terms), and would consider the inputs available including resources such as rooms, equipment, teachers etc.

The process of learning would be evaluated, or rather, monitored, and the final evaluation of the output would be assessed in relation to the original education objectives.

A "retrospective" evaluation of graduates some time after they have left the school might also be a useful undertaking, and provide even further information about the relevance of the course objectives, in terms of those elements of the education which prove to be useful in practice, and which elements might be useful but were not taught.

What to evaluate?

Again the full scale of "skills" were mentioned: cognitive, communicative and practical. It was underlined that an important element was the graduate's ability to apply knowledge to the resolution not only of familiar problems but to unexpected and new situations, thus demonstrating that the skills imparted had in fact been digested.

Not only students but teachers, plans, the course itself and the examinations should be evaluated.

How to evaluate?

A distinction was made between formative evaluation which is carried out to help the students to assess their learning process and to make adjustments, and help teachers modify and improve the training programme, and summative evaluation (certifying evaluation) which was described as the more traditional form of measuring the final achievements of students.

In conclusion

In spite of the short time at the disposal for group work, there was unanimity among participants that the establishment of educational objectives and their continuous evaluation were of great educational importance.

In fact, the participants found, this attitude to teaching and learning should permeate the whole medical course and not only the nutritional part of it.

Since nutrition is in many cases a "new" subject, the nutrition course could provide a good educational example, which would hopefully enable future physicians to provide their clients with a better understanding of nutrition and its potential in the prevention of disease.

The participants then went on to make the following recommendations:

RECOMMENDATIONS ON A
STRATEGY FOR THE STRENGTHENING OF NUTRITION IN MEDICAL EDUCATION

1. GENERAL RECOMMENDATIONS

Common educational objectives in nutrition

should be established within each institution, that is, agreement upon what the students after graduation should be able to do under specified conditions and up to specified standards, both for the specific nutrition course and for all nutrition-related subjects in the medical curriculum.

(For a full definition of "educational objectives" see Oshaug et al 1988).

To achieve this coordination

all faculty/staff involved with nutrition-related subjects in each medical school should meet at regular intervals to assess the content of their teaching in nutrition and its integration into the curriculum, and their approach to the educational process.

Evaluation

should be undertaken at all stages and levels of development of the nutrition component of the curriculum, involving recipients and deliverers of the educational message in nutrition, using a simplified evaluation approach (see Oshaug et al 1988).

Exchange of educational material

for use in teaching nutrition between medical schools should be undertaken on a systematic basis.

SPECIFIC RECOMMENDATIONS

As there is a need to stimulate the interest for learning nutrition in medical schools, the following action is needed:

1. A review of the present situation of nutrition training in medical schools in Europe and outside, and publication of the results. There is a need to know where nutrition is being taught, by whom, what is being taught and how it is being taught.
2. On an individual level, activity can be stimulated by those who are interested in the subject (such as the workshop participants) taking initiatives vis-à-vis medical colleagues. This would include contact with individual medical colleges, the medical associations and professional journals both of medicine and nutrition.
3. WHO should try to stimulate action from Governments "through the proper channels", drawing their attention to the problem. Such action will consist of information gathering, research and development of educational approaches to nutrition in medical training.

4. Studies should be undertaken to provide better qualitative and quantitative information on the actual occurrence of nutrition-related problems in medical practice, and how such problems are managed. In particular, attention should be directed towards specifically initiating multi-centre studies utilizing common methodology.

5. A Network for Nutrition Education in Medical Schools (NEMS) is established with immediate effect, initially comprising the participants of the workshop. Focal point for the Network would be Dr Steve Wootton, Department of Human Nutrition, University of Southampton.

The Network will have a steering group, consisting of, in addition to Dr Wootton:

Professor Pier Leopoldo Borrelli de Andreis
Università degli Studi di Roma "La Sapienza"

Assoc. Professor Barbara Cybulska
National Food and Nutrition Institute, Warsaw

Assoc. Professor V. Kudasheva
I MMI im. I.M. Satchenova, Moscow

Professor M. Pecelj Gec
School of Medicine, Belgrade

Assoc. Professor B. Popov
Institute of Hygiene, Sofia

Dr J. Powell-Tuck
Rank Department of Human Nutrition
The London Hospital Medical College, London

Professor U. Julius
"Carl Gustav Carus" Medical Academy, Dresden

This group will function as an informal facilitating support group and additional members may be co-opted into the group.

The Focal Point will:

1. Be responsible for drafting an overview of the situation with regard to nutrition education in medical schools, based on the information received in connection with the workshop. This draft will in its introduction clearly state that it is seen as a first, rough attempt to collect this information, and it will contain a structured questionnaire intended to facilitate collection of additional information about the situation from recipients of the draft. This may in due course result in a report as described above.

2. Receive and collect, for publication at a suitable point in time, lectures, articles and statements given by other members of the Network, on nutrition education in medical schools. These have to be translated by the authors into English or French.

3. Collect from and disseminate to the Network learning materials that have proved to be useful in nutrition training. These, too, should be translated into English or French by their authors.
4. Co-operate and if feasible coordinate, the activities of the network with the initiatives of IUNS (International Union of Nutritional Sciences), FENS (Federation of European Nutrition Societies), GEN (Group of European Nutritionists) and the GERM (Groupe d'Etudes et de Recherches sur la Malnutrition).
5. Co-operate with the Nutrition Programme in the WHO Regional Office for Europe and its Collaborating Centres working with nutrition training, the National Institute of Food and Nutrition in Warsaw and Institute for Nutrition Research, University of Oslo.
6. Be responsible for:
 - (a) planning of meetings of the steering group,
 - (b) convening meetings to exchange resource material and develop research methodology to investigate needs, attitudes and knowledge of physicians in the area of nutrition, leading to a job analysis of the subject, upon which nutrition training can be based.
 - (c) take part in the planning and execution of the 1992 International Conference on "Learning nutrition in medical schools" to be undertaken by the WHO Collaborating Centre in Warsaw.

The Network will:

Receive from the WHO Regional Office for Europe, within one month after the workshop, a draft report of the workshop on which they will comment within the deadline if they find it necessary.

Receive a final report from the workshop, which each member will bring to the notice of relevant national bodies such as Ministry of Health and of Education, professional societies, professional journals and colleagues working in education of medical students. Associations of medical students should also receive copies.

Assist in the collection of information about nutrition education in medical schools in their own country and countries where they are aware of such education.

Stay in contact with the Focal Point and the WHO Collaborating Centres in Warsaw and Oslo, and provide them with active support when required.

REFERENCES

- National Research Council (1985). Nutrition education in U.S. medical schools. Washington, DC: National Academy Press
- The Surgeon General's Report on Nutrition and Health, 1988. US Department of Health and Human Services, Public Health Service Publication No. 88-50210, Washington
- van Dusseldorp, M., Meeuws, H. van Kessel, H.; Hendriks, L., Chin L & Bakx, C. (1988) Frequentie van voedingsvragen op het spreekuur van de huisarts (How often are GP's asked questions about nutrition during consulting hours) Ned Tijdschr Geneeskd 135, 51, 2325-28
- IUNS (1971) Nutrition Education in Medical Faculties. J. Nutr. Educ. 3:73
- IUNS (1978) Notes on Workshop on Nutrition Education for Medical and Other Health Sciences. Wld. Rev. Nutr. Diet. 38: 153-225 (1981)
- IUNS (1979) Nutrition Education and Training in Schools of Medicine, Pharmacy and Dentistry. Xerox, 22 p.
- Nestle, M. (1988) Nutrition in Medical Education: New Policies needed for the 1990s J Nutr. Educ 20:1, S1-S6
- Trichopoulou, A., Tylianakis, M., Katsouyanni, K. and Tzonou, A. (1987) Nutritional knowledge of health professionals in Greece. Hygie VI: 12-14
- Doll, R. and Peto, R. (1981) The causes of Cancer. Oxford University Press, Oxford
- James, W.P.T. (1988) Healthy Nutrition. Preventing nutrition-related diseases in Europe. WHO Regional Publications, European Series No. 24
- American Heart Association (1961) Report by the central committee for medical and community program of the American Heart Association.
- Oshaug, A., Benbouzid, D. and Guilbert, J.J. (1988) "Educational Handbook for Nutritionists". NUT/88.1, World Health Organization, Geneva
- Mager, R.F. (1967) Developing vocational instruction Belmont, CA, Fearon
- Rossinski (1988) in Lopec, A.A.S., Read, M.S. and Feldman, E.V.: 1987 A.S.C.N. Workshop on Nutrition Education for Medical/Dental Students and Residents - Integration of nutrition and medical education: Strategies and techniques. Am.J.Clin.Nutr. 47:534-50.

Annex 1

STRATEGY FOR THE STRENGTHENING OF NUTRITION IN MEDICAL EDUCATION

Conclusions of a Workshop on Learning Nutrition in Medical Schools, held 12-14 April 1989, at the National Food and Nutrition Institute, Warsaw, under the auspices of the World Health Organization

At this meeting 23 representatives from medical schools in Bulgaria, Denmark, Finland, the German Democratic Republic, the Federal Republic of Germany, Italy, Morocco, the Netherlands, Norway, Poland, United Kingdom, USA, USSR, and Yugoslavia met to discuss the teaching of nutrition in medical schools. The World Health Organization had circulated a questionnaire to all medical schools in its European sector to identify those coordinating nutrition courses in their schools and respondents had been invited to attend.

Although it was clear that nutrition was taught in some form in every medical school, it was seldom that a well defined course in nutrition was included. Nutrition was taught as part of physiology, biochemistry, epidemiology, clinical medicine, paediatrics and surgery, for example, but because no individual person or department was responsible for such teaching it was poorly coordinated and there were risks of omission and repetition. Without an individual responsible for it, nutrition was taught without any clear ideas of the aims of the teaching and without critical assessment of its impact. Nutrition teaching was therefore difficult to analyse and quantify.

There was some discussion of the objectives of teaching nutrition in medical schools and for the most part a commonality emerged. Most medical schools seek to produce an "undifferentiated" graduate fertile for post-graduate specialization in fields as disparate as general practice, internal medicine, surgery, paediatrics, community health, epidemiology etc. and nutrition education has to reflect this while not seeking to overload the already full curricula followed by the students. Much that could be regarded as nutrition will continue to be taught in the clinical, physiological, biochemical and epidemiological departments but progress will depend upon ensuring that certain core aspects of nutrition are taught in a coherent and structured way.

If nutrition teaching is to be effective it needs not only aims and objectives but also effective assessment. Examination of nutritional knowledge as a compulsory part of the students' summative assessment was seen as a powerful inducement to the acquisition of nutritional expertise but formative assessment was also seen as a useful way of stimulating student-centered learning. Such assessment at the beginning, in the middle and at the end of a course might not only show the student his own deficiencies in time to correct them before formal summative assessment but could also help the teachers respond better to specific and general problems, thereby evolving a better nutrition course. Teaching in a problem oriented way using questions to guide student-centered learning was discussed.

How could these aims be furthered?

We still need much more information on what is already being taught and yet in the present situation we are unlikely to gather it until individuals charged with the duty of coordinating and monitoring nutrition in medical schools are identified. In many schools, therefore, the first step would be the appointment of such a person, or, better, department. We should therefore stimulate individual medical schools along these lines.

Networking between individuals teaching nutrition will encourage curriculum development and assessment and enable areas of commonality to emerge. Educational material may be exchanged. To this end a network was initiated at the meeting based, to start with, upon those present at the meeting, and facilitated by an international steering group comprising seven of the delegates and sponsored by the World Health Organization. Further meetings were planned with the next one to be held in Southampton.

Stimulation of interest in nutrition in medical education can be achieved not only at medical school level but also by alerting governmental and fund-providing bodies to the present inadequacies and to the importance of nutrition in the drive towards "Health for All". Such stimulation could be furthered in cooperation with existing central medical colleges and with societies oriented towards nutrition.

In the first place we decided to contact the medical schools again to make them aware of the meeting and the steering group, and to ask them to identify an individual or single department in overall charge of nutritional teaching of medical and dental students. We should then administer a questionnaire along the lines of that already administered by the British Nutrition Foundation in 1982. Overall the challenge must be to demonstrate to deans of medical schools that the introduction of nutrition as a separate subject into the medical curriculum need not imply large additions to what is often an already overcrowded teaching load, but that much could be achieved by the development of coherent aims, coordination of existing nutrition teaching, pruning of repetition and the plugging of apparent gaps with short nutrition courses.

Annex 2

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